DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicants' submission filed on May 4, 2010 has been entered.

2. **Claims 1 and 3-11 are pending.**

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any

evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. **Claims 1, 3-7 and 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cerda et al. (US 5,514,666).**

Regarding **claims 1, 3 and 4**, Cerda et al. disclose a protein powder composition comprising from about 30 to about 35 (w/w) % pectin having a degree of esterification ≥ 50% (high ester or high methoxyl (HM) pectin) with the balance comprising protein (C3/L6-8, 53-57)(i.e. about 42% pectin w/w of the protein content-wherein the composition comprises 30% w/w pectin and 70% w/w protein). The protein powder composition has a pH of less than 7 (Example 1).

While Cerda et al disclose a composition comprising from about from about 30 to about 35 w/w % pectin, the reference does not explicitly disclose a composition comprising from about 3 to about 15% pectin (weight/weight of the protein content).

As stability and viscosity of the reconstituted protein powder composition are variables that can be modified, among others, by adjusting the amount of pectin, the precise pectin would have been considered a result effective variable by one of ordinary skill in the art at the time of the invention. As such, without showing unexpected results, the claimed pectin content cannot be considered critical. Accordingly, one of ordinary skill in the art at the time the invention was made would have adjusted, by processing, the pectin content of the protein powder in Cerda et

al. to obtain the desired balance between the viscosity and stability of the reconstituted protein powder composition.

Regarding the adsorption of the pectin to the protein base, as the Cerda et al. disclose the mixing of the pectin and the protein, it is considered intrinsic that the pectin would be adsorbed to the protein, as is claimed by Applicants.

Regarding **claims 5-7**, Cerda et al. disclose all of the claim limitations as set forth above. Given the protein powder composition of the prior art meets the limitations of the protein powder composition of the instant claims, intrinsically the protein liquid would display the recited stability and viscosity properties.

Regarding **claims 10-11**, Cerda et al. disclose all of the claim limitations as set forth above. Cerda et al. also disclose that protein base of the protein powder composition may be milk (Example 2) and the powder may be reconstituted in foodstuffs including salad dressings and juices (col. 3 lines 58-67).

6. **Claims 8 and 9 under 35 U.S.C. 103(a) as being unpatentable over Cerda et al. (US 5,514,666) with evidence provided by May (May, C.D. 2000. Pectins. In Phillips, G.O.; Williams, P.A. Handbook of Hydrocolloids. pp. 169-188. Woodhead Publishing).**

Regarding **claims 8 and 9**, Cerda et al. disclose all of the claim limitations as set forth above. Cerda et al. do not speak to the specific degree of esterification of their pectin, other than it is a HM pectin (i.e. pectin with degree of esterification equal to or greater than 50%).

One of ordinary skill in the art at the time the invention was made would have been able to clearly envisage the use of a pectin having a degree of esterification of greater than 60 or 70 % where a HM pectin was taught by the prior art. Alternatively, one of ordinary skill would have

found it obvious to select a HM pectin having a degree of esterification of greater than 60 or 70%. May teaches that commercial pectin commonly has a degree of esterification of around 67-73% (p. 172), indicating that one of ordinary skill would have found it obvious to utilize a pectin having a degree of esterification common to commercial HM pectins. Undue experimentation would not have been required, and there would have been a reasonable expectation that the resultant product would have maintained its physical and sensory properties.

Response to Arguments

7. Applicant's arguments filed May 4, 2010 have been fully considered but they are not persuasive.

"Applicants disagree with the Examiner's assertion that the lower pectin amount of the instant claims is non-critical and adjustable variable that could be accomplished by one skilled in the art by routine experimentation." Applicants submit that the lower amount of pectin in the claimed protein powder is advantageous because less is required resulting in significant cost savings and a protein-containing liquid with a significantly lowered viscosity.

In this case, since the instant specification is silent with respect to unexpected results or the criticality to the upper range of the pectin composition, the specific pectin content of the protein powder composition is not considered to confer patentability to the claims. One of ordinary skill in the art would expect that using a lower amount of pectin would result in a coast savings and lower viscosity.

Applicants assert that they "believe that the reason Cerda eta l. teach such a higher amount of pectin is because, in contrast to the instant claims, Cerda et al. does not teach the

feature of the instant claims that the pectin is adsorbed to the protein base. . . Without the adsorption of pectin, Cerda et al. are attempting to impart stability of the protein powder by compensating with a much larger amount of pectin." Applicants explain that the instant application teaches that a special process of homogenization is employed to cause the pectin to be adsorbed to the protein base. In contrast, Cerda et al. teach simple mixing, i.e. with a stirrer. Applicants assert that the application as filed presents the results of comparative experiments that clearly demonstrate the inability of mixing (as opposed to homogenization) to effect stabilization of the protein powder. Applicants argue that "the lack of stabilization resulting from mixing is a result of the pectin not being adsorbed to the protein by this process."

Applicants have not shown, with evidence, that pectin is not adsorbed to the protein base of Cerda et al. Here, applicants compare a test protein powder (test) made by (a) homogenizing a mixture comprising pectin, protein and water; and (b) spray drying to form a protein powder base to a reference protein powder made by (a) homogenizing a mixture comprising protein and water; (b) spray drying to form a protein powder base; and (c) dry mixing with pectin. Applicants submit that the test sample was stable while the reference sample showed phase separation and sedimentation.

However, applicants have not shown that comparison samples in said examples fairly represent the closest prior art. Cerda et al. disclose a protein powder made by (a) mixing protein, pectin and water; and (b) drying the mixture. Cerda et al. does ***not*** disclose a protein powder made by (a) homogenizing a protein and water mixture; (b) drying the mixture to form a powder; and (c) dry mixing the powder with pectin.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ELIZABETH GWARTNEY whose telephone number is (571)270-3874. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, D. Lawrence Tarazano can be reached on (571) 272-1515. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ELIZABETH GWARTNEY/
Examiner, Art Unit 1781